

Main Factors Affecting the Environment and their Consequences

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Annotation: The severity of ecological situations is determined by many factors: the specialization and combination of developing industries, the scale of production and related technogenic emissions, the methods of economic management, the population density of the area, and the natural capacity of the local ecosystem to endure human pressure.

This article provides an overview of the main ecological problems and their direct influence on the human body. It was found that young people are the most vulnerable to negative environmental impacts. The article also presents a list of common environmental diseases.

Keywords: ecology, youth, factors, impact, disease.

Introduction. The question of how ecology influences the future development of the global community is one of the most urgent issues today. Many factors affect the environment. These may arise both from natural processes and from human activity, often leading to unfavorable consequences. Purpose of the Study To reveal the main factors through which deteriorating environmental conditions affect human health. Research Results Factors Affecting Environmental Change The ecological environment is dynamic by nature and constantly changes under the influence of various factors. There are several groups of factors that directly affect its state:

1. Abiotic factors—these include non-living elements and phenomena of nature that directly or indirectly affect living organisms. Among them, the main ones are climatic factors such as solar radiation, light and daylight regime, temperature, humidity, precipitation, wind, and atmospheric pressure.

2. Anthropogenic factors—these reflect the intensive influence of human activity. They include all forms of human action that alter nature as a habitat for other living organisms and affect their lives directly. Anthropogenic impacts can be intentional, accidental, or unconscious, but in most cases they are negative. Examples include the reckless resettlement of animals or plants, the extermination of certain species, and pollution of the environment.
3. Biotic factors—the set of relationships and interactions among living organisms and their influence on their environment. These include phytogenic factors (the effects of plants on each other and their surroundings) and zoogenic factors (the influence of animals on one another and their environment).
4. Physical factors—those caused by physical states or phenomena, such as mechanical or wave processes (for example, temperature).
5. Chemical factors—related to the chemical composition of the environment, such as salinity of water or oxygen concentration.

Edaphic (soil) factors represent a combination of chemical, physical, and mechanical properties of soils and rocks that affect both the organisms living in them and the root systems of plants. For example, the influence of biogenic elements, soil moisture, structure, and humus content plays an important role in plant growth and development. Taking all these into account, we can conclude that all factors directly or indirectly affect human beings. The most concerning point is that humans themselves create many of these environmental problems starting with massive emissions of harmful substances into the atmosphere and extending to radiation pollution caused by the use of weapons. Territories where military operations occur show extremely poor levels of environmental health, as modern warfare technologies continue to evolve with the ultimate goal of destruction. Unfortunately, in military conflicts, civilians representing the “third side” suffer the most, becoming victims not only of war but also of the resulting ecological crisis. Among modern toxic agents, organophosphorus nerve poisons pose the most dangerous threat to ecosystems. They can cause the death of most vertebrate and invertebrate species. Although their effect on plants is less severe, contaminated plants can still become toxic to herbivorous animals. The Impact of Ecology on the Younger Generation While breathing air, humans absorb various environmental pollutants yet life is impossible without air, water, and food. Tragically, these essentials often carry hidden dangers. Both organic and inorganic pollutants contaminate the environment, leading to serious health issues. Radioactive substances, for instance, can cause cancer and other diseases. Heavy metals such as mercury, zinc, and cadmium falling with precipitation onto streets and entering the body through food or inhalation are among the most serious threats. The list of environmental diseases is long, but some of the most common include: Asthma triggered by high concentrations of chemicals in the air. “Kirishi” syndrome – an allergic reaction to airborne protein-vitamin compounds. Yusho disease – caused by an increased concentration of polychlorinated biphenyls (PCBs) in the body. Immune depression – results from intoxication with heavy metals and dioxins. Ticker syndrome – common among children living near oil refining facilities. Chronic fatigue syndrome – characterized by a weakened immune system. Air pollution is recognized as a leading environmental risk factor in the development and progression of diseases such as asthma, lung cancer, and ventricular hypertrophy. The size of airborne particles directly affects the likelihood and severity of respiratory and cardiovascular illnesses: the smaller the particles, the deeper they penetrate into the lungs and bloodstream. Symptoms such as shortness of breath, coughing, dry mouth, and reduced physical activity due to breathing difficulties are the most common signs of respiratory disease caused by pollution. Long-term exposure to harmful substances is one of the key reasons for decreased life expectancy.

Conclusion Based on the results of this study, it can be concluded that without government attention to ecological problems, both life expectancy and productivity—especially among young people—will continue to decline. If humanity keeps worsening the situation through emissions,

waste pollution, and wars, the number of harmful environmental factors will only increase. Sadly, the main problem remains the human being himself. Immediate action is needed to begin an era of environmental renewal and recovery. This process must start without delay if we hope to preserve both nature and life itself.

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